## SEQUENCE LISTING <110> Evotec NeuroSciences GmbH <120> Diagnostic and therapeutic use of a voltage- gated ion channel for neurodegenerative diseases <130> 030077wo ME/BM <140> PCT/EP03/00400 <141> 2003-01-16 <160> 15 <170> PatentIn Ver. 2.1 <210> 1 <211> 272 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: cDNA fragment of the human SCN2A gene <400> 1 aattaaggtt ggaagaataa aaagcaagaa gctcttcctt gtttgctgca acctattgct 60 taatgacatg aagaatgagg tottggtaga acaatttgot toactttaco actgatatat 120 ggcttcccat attagacttc tgaacagggg aaggaataag atacagcagc ataggcaaga 180 taaacatgca gcagtgacag cttcaaacta taatggaacc aattacatca tattacctgt 240 tggaagcttg caaactatac ttactggggt ac <210> 2 <211> 8292 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: cDNA of the human SCN2A gene <400> 2 cactttctta tgcaaggagc taaacagtga ttaaaggagc aggatgaaaa gatggcacag 60 tcagtgctgg taccgccagg acctgacagc ttccgcttct ttaccaggga atcccttgct 120 gctattgaac aacgcattgc agaagagaaa gctaagagac ccaaacagga acgcaaggat 180 gaggatgatg aaaatggccc aaagccaaac agtgacttgg aagcaggaaa atctcttcca 240 tttatttatg gagacattcc tccagagatg gtgtcagtgc ccctggagga tctggacccc 300 tactatatca ataagaaaac gtttatagta ttgaataaag ggaaagcaat ctctcgattc 360 agtgccaccc ctgcccttta cattttaact cccttcaacc ctattagaaa attagctatt 420 aagattttgg tacattcttt attcaatatg ctcattatgt gcacgattct taccaactgt 480 gtatttatga ccatgagtaa ccctccagac tggacaaaga atgtggagta tacctttaca 540 qqaatttata cttttgaatc acttattaaa atacttgcaa ggggcttttg tttagaagat 600 ttcacatttt tacgggatcc atggaattgg ttggatttca cagtcattac ttttgcatat 660 gtgacagagt ttgtggacct gggcaatgtc tcagcgttga gaacattcag agttctccga 720

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Asp Leu Gly Asn Val Ser Ala Leu Arg Thr Phe Arg Val Leu Arg Ala 210 215 220

Leu Lys Thr Ile Ser Val Ile Pro Gly Leu Lys Thr Ile Val Gly Ala 225 230 235 240

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Thr Thr Phe Asn Arg Thr Val Ser Ile Phe Asn Trp Asp Glu Tyr Ile 305 310 315 320

Glu Asp Lys Ser His Phe Tyr Phe Leu Glu Gly Gln Asn Asp Ala Leu 325 330 335

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665

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1005

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- Pro Leu Arg Ala Leu Ser Arg Phe Glu Gly Met Arg Ala Val Val Asn 1315 1320 1325
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Ile Leu Phe Ala Phe Thr Lys Arg Val Leu Gly Glu Ser Gly Glu Met 1860 1865 1870

Asp Ala Leu Arg Ile Gln Met Glu Glu Arg Phe Met Ala Ser Asn Pro 1875 1880 1885

Ser Lys Val Ser Tyr Glu Pro Ile Thr Thr Leu Lys Arg Lys Glu 1890 1895 1900

Glu Glu Val Ser Ala Ile Ile Ile Gln Arg Ala Tyr Arg Arg Tyr Leu 1905 1910 1915 1920

Leu Lys Gln Lys Val Lys Val Ser Ser Ile Tyr Lys Lys Asp Lys 1925 1930 1935

Gly Lys Glu Cys Asp Gly Thr Pro Ile Lys Glu Asp Thr Leu Ile Asp 1940 1945 1950

Lys Leu Asn Glu Asn Ser Thr Pro Glu Lys Thr Asp Met Thr Pro Ser 1955 1960 1965

Thr Thr Ser Pro Pro Ser Tyr Asp Ser Val Thr Lys Pro Glu Lys Glu 1970 1975 , 1980

Lys Phe Glu Lys Asp Lys Ser Glu Lys Glu Asp Lys Gly Lys Asp Ile 1985 1990 1995 2000

Arg Glu Ser Lys Lys 2005

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